

Small and Medium-Size Enterprise Support Policies in Japan

Motoshige Itoh
Shujiro Urata

Technical and marketing support for small and medium-size enterprises (SMEs) in Japan comes mostly through private networks. Public support is more important in the area of finance. Three sources of directed credit—loans from specialized parastatals, loans channeled through local governments, and loan guarantees—account for about 20 percent of all SME borrowing and 35 to 60 percent of investment borrowing.



Summary findings

Itoh and Urata examine how Japan's public and private sectors support small and medium-size enterprises (SMEs). They focus on technical, financial, and marketing assistance.

Their findings are based on a survey of 107 firms: 40 that produce silverware, 33 engaged in synthetic textile weaving, and 34 that manufacture auto parts. Each sector represents a distinctive form of industrial organization, but they also share several characteristics: Each industry is concentrated in a particular region, each involves close subcontracting relationships, and each has overcome difficulties and achieved a certain measure of industrial success.

Technical support for these SMEs came largely through private channels, including parent firms, equipment suppliers, and other firms in the same line of business. Public institutions played only a subordinate role. Marketing support also came largely from parent firms, trading companies, and other private sources. Producers of intermediate goods in particular — such as auto parts and synthetic textiles — relied heavily on subcontractors.

Most loans for Japan's SMEs were provided under competitive market conditions but three sources of directed credit — loans from specialized parastatals, loans channeled through local governments, and loan guarantees — accounted for about 20 percent of all SME borrowing and 35 to 60 percent of investment borrowing. Default rates averaged less than one-half of one percent of outstanding loans, and real interest rates were positive. The majority of firms surveyed used and valued directed credits. The smallest firms in particular valued them.

Public institutions complemented the private marketplace in all three areas. Public technical and marketing support helped create and maintain private networks. In finance, Japan successfully embedded directed credit in a well-functioning, predominantly private, competitive, and prudential financial system. Through partnerships, public support continues to play both a direct and an indirect role in supporting the development of SMEs in Japan.

This paper — a product of the Finance and Private Sector Development Division, Policy Research Department — is part of a larger effort in the department to examine the impact of proactive intervention on SME performance. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Daniele Evans, room N9-055, extension 38526 (82 pages). December 1994.

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I. Introduction and Overview

This paper has two main objectives. The first is to analyze how Japan's small and medium enterprises (SMEs) developed over time, focusing on their acquisition of technological capability, marketing capability, and financial resources. The second is to examine the public sector's role in assisting SMEs to acquire these technological and marketing capabilities and financial resources.¹

We began by looking through published statistics and studies to analyze past SME performance and support policies. Then, between July and December 1992, we conducted intensive interviews with SMEs in three target industries based on common survey questions. At the national level, we interviewed officials from MITI, the Small and Medium Enterprise Agency under MITI, and public financial institutions. We also interviewed officials from local government, chambers of commerce, and industry associations. These discussions continued throughout the period of our research, in order to deepen our understanding of the industries involved and cross-check our findings.

The three industries selected for this analysis – the silverware industry, the synthetic fiber-weaving industry, and the auto parts industry – represent three distinct prevalent types of industrial organization in Japan. Despite differences in industrial organization, the industries share several common characteristics. First, each is geographically concentrated. This characteristic is important not only because SMEs in the same industry are often focused on a particular geographic area but also because SME policies are often applied by region. The following industry-region pairs were selected for our analysis: silverware–Tsubame, synthetic fiber-weaving–Fukui-Ishikawa, and auto parts–Ohta. A second similarity is that each industry has a close subcontracting relationship with parent firms or trading houses. As we shall see, close relationships of this kind are a pervasive feature of Japanese SMEs. The third common

¹A large number of studies on SMEs in Japan have been published in Japanese, but only a limited number have been published in English. See, for example, Kaneda (1980), Yokokura (1988), and Berry and Mazumdar (1991).

feature is that these industries have all survived difficult times and proven themselves successful. A study of such successful cases helps to identify important factors leading to the development of SMEs.

Small and medium enterprises (SMEs: defined as enterprises with less than 300 employees) occupy an important position in the Japanese economy. There were approximately 6.6 million SMEs in 1989, or 99.2 percent of the total number of non-primary sector establishments in Japan. SMEs employed 40 million people, accounting for 80 percent of non-primary sector employment. Small SMEs, (defined as enterprises with less than 20 employees), play the dominant role. Japan has some 5 million small SMEs employing 15 million people, accounting for 76.8 and 31.3 percent of the respective SME totals.² Many SMEs manufacture parts and components used in the production of final products by large firms. It is therefore not possible to fully understand the economic success of the Japanese economy without recognizing the role of SMEs.³

The Japanese government's recognition of the importance of SMEs in the Japanese economy, as well as of their relatively disadvantageous position vis-a-vis large firms, led to active SME promotion policies in the post-World War II period. In the early post-World War II period, heavy and chemical industries were heavily promoted, and the basic principle behind SME policies was to protect SMEs from the large firms. By the mid-1950s this principle had changed from protection to promotion and modernization. Behind the change in emphasis was the productivity disparity between Japan's large firms and SMEs, which the government wanted to eradicate in order to achieve further economic expansion.

As the Japanese economy matured after a period of rapid economic growth in the 1950s and 1960s, the objective of SME policies changed again. In the early 1970s, the emphasis of SME policies shifted from encouraging growth-oriented, larger-scale production

²Between 1957 and 1989 the number of SME establishments in the non-primary sector increased by 1.9 times, from 3.5 million to 6.6 million. The increase was most notable in the 1960s, when the Japanese economy experienced rapid growth. Over the same period, employment at SMEs increased by 2.4 times. The magnitude of increase in the number of establishments as well as in employment was greater for large firms, leading to a decline in the share of SMEs in the non-primary sector in both indicators. The observed decline in the share of SMEs in economic activities during the post World War II period reflects an increase in the scale of their operations. (Prime Minister's Office various issues.)

³ The changes in the position of SMEs in manufacturing are of particular interest, as the share of SMEs in manufacturing employment declined from 73.5 percent in 1957 to 69.0 percent in 1969 before increasing to 73.5 percent in 1978 and further to 74.4 percent in 1989. The decline in the share of SMEs from 1957 to 1969 is due to a rapid expansion in such scale-oriented production as iron and steel. In contrast, the increase in share that followed reflects a shift in manufacturing production from scale-oriented, material-based manufacturing to process-oriented, component-based manufacturing such as electric machinery.

supporting to high quality, information-intensive production. Moreover, since the 1970s, policies have encouraged SMEs to shift from declining to growing sectors, and to cope with rapidly changing economic developments such as yen appreciation, two oil crises, labor shortages, and environmental problems.

SME policies in Japan are basically formulated at the central government level, at MITI and its subordinate Small and Medium Enterprise Agency. These policies are then implemented mainly by local governments, public institutions, and semi-public institutions (Table I-I). Most institutions have national-prefectural linkages. The central body for the formulation of SME policies is the Chusho Kigyo Seisaku Shingikai [SME Policy Council], which consists of representatives from business, academia, labor unions, journalism, and the Housewives Federation, among others.

Instruments applied to carry out SME policies include financial, tax-subsidy, and regulatory measures. Financial measures will be discussed in more detail in Section VI, so we will describe only tax subsidy and regulatory measures here.

SMEs may take advantage of preferential corporate tax treatment and special depreciation allowances. Subsidies are provided to activities such as research and development, and managerial training. There are also various laws intended to protect SMEs. For example, the Law on the Prevention of Delay in Payment of Subcontracting Charges and Related Matters (Shitauke Daikin Shiharai Chien-to Boshi Ho) was enacted in 1957 to protect subcontracting SMEs from such unwarranted business practices as delayed payment by parent firms.⁴

Even at its peak (in 1970), just over half of one percent (0.61 percent) of the national budget general account was allocated to SME measures. The SME allocation was significantly higher in the Fiscal Investment and Loan Program (FILP), in which SMEs consistently received more than a 10 percent share, with a high of close to 20 percent in 1980. In 1980, ¥4,500 billion was allocated to SMEs through the FILP, compared with ¥195 billion through the general budget.

⁴ In fiscal 1991, the Fair Trade Commission investigated 71,603 cases and found 1,549 violations of the law. Of those cases 1,503 have been processed. In 1,492 cases, warnings were given and no action has yet been taken on the remaining 101 cases. [Fair Trade Commission (1992)]

II. Industrial Organization and the Role of SMEs in Japan

Industry structure shapes what kind of support SMEs receive from other firms. SME marketing activities are supported by parent firms and trading houses with which SMEs often have close transactional relationships. SMEs also receive support for acquiring technological capability from competing firms in the same local production networks, from parent companies, and from firms supplying equipments and materials.

This section begins with an overview of the determinants of inter-firm relations, followed by a detailed look at the patterns of such relations in the three chosen industries. The final section summarizes some distinct features of inter-firm relations and their implication for SME support policies.

II-1. Overview

When one looks at the whole production process of a commodity, from the upstream level of raw materials to downstream distribution, one generally observes a number of processes involved in producing that particular good. Take, for example, a synthetic fiber product. In this industry, the requisite processes include the production of materials by chemical companies, twisting and sizing, weaving, finishing, and apparel making. Products like automobiles and home electronic appliances consist of many parts, (e.g. more than 30,000 parts for automobiles), and each part requires a different production process. Even products like silverware and housewares, which look quite simple in their final forms, actually go through many production processes.

Inter-firm relations between sellers and buyers of intermediate goods are often quite complicated. Information is exchanged between the firms involved in the transactions, and cooperative behavior becomes necessary to establish efficient transactional relations. Asymmetric information and conflicts of incentives between firms can make it difficult to establish efficient transactional relations. These problems can be solved neither by vertical integration, in which these problems are solved as internal allocation problems inside a firm, nor by complicated inter-firm contracting mechanisms.

In Japan, the problems seem to be resolved by interfirm contracting rather than by vertical integration, at least in comparison to other industrialized nations such as the United

States. This reliance on non-integration solutions creates considerable opportunities for SMEs to play important roles in the social division of labor. While we do not have space here to discuss fully why many Japanese industries choose non-integration solutions, some of the key reasons include:

- **Homogeneity of population:** Since the Japanese economy consists of a homogeneous population with the same historical and cultural background, it is relatively easy for firms to engage in complicated transactional relations. As explained in the literature on game theory and information economics, in repeated and multiple inter-firm relations, firms can form cooperative transactional relations based on such mechanisms as reputation, hostage, and punishment.
- **High economic growth:** Many of the so called Japanese-style transactional relations (such as the subcontracting system, main bank system, and lifetime employment system), emerged and expanded during the country's high growth era, from the 1950s through the early 1970s. When an economy is growing rapidly, cooperative transactional relations form more easily.⁵
- **Geographical concentration:** The formation of local production networks -- that is, the concentration of many SMEs in narrow regions with highly interdependent interactions among SMEs, parent firms, and trading houses -- is the most important aspect of the pattern of SME industrial organization in Japan. Very high population density makes it easy for firms to find business partners with which they have repeated transactional relations; public institutions also played a key role in enhancing the function of local production networks.
- **Legal structure:** It is often useful for larger firms to delegate various minor processes of production to smaller firms through subcontracting transactions. This separation allows larger firms to apply different wage conditions for main corporate entities and for subcontracting firms. In this way, larger firms can also enjoy the advantages of various SME support policies, including tax preferences applied to subcontracting relations.

II-2. Automobile Industry: An Example of Subcontracting

The automobile industry provides a classic example of the role of subcontracting. According to one study, 55.9 percent of the SMEs in Japan were involved in subcontracting relations in 1987.⁶ As shown in Table II-1, the ratio of internal to total production of large

⁵On this point see Klein, Crawford and Alchian [1978] and Itoh and Matsui [1987].

⁶ These numbers change considerably depending on the definition of subcontracting relations. The definition used in this figure is not clearly stated.

auto assembling firms tends to be usually low in Japan.⁷ The internal production rate of the Japanese auto producers is around 30 percent, whereas the figures are higher for U.S. producer General Motors (GM). The production structure of the Japanese motor vehicle industry is sometimes called a "pyramid" or "multi-tier structure." An assembler has direct transactional relations only with first tier subcontractors (suppliers); first tier subcontractors with second tier subcontractors; second tier subcontractors with third tier subcontractors, and so on in a pyramid-like structure. A MITI study of the subcontracting relations of a Japanese automobile producer illustrates the resulting pattern (see Table II.2).

The automobile industry in Ohta is structured in pyramid-style, with Fuji Heavy Industries on top as an assembler. Although there is no one-to-one correspondence between the size of a firm and the type of a subcontractor, higher-tier subcontractors are generally larger than lower-tier subcontractors. A survey of subcontractors for Fuji Heavy Industries conducted by Ohta city found that the average number of employees for the first-tier, second-tier, and third-tier subcontractors are, respectively, 258 (range: 35 to 1850), 24 (5 to 78), and 6 (1 to 30).⁸

In 1989 there were 73 establishments in Ohta's transport machinery sector.⁹ (Table II-3). Among them are two assemblers, Fuji Heavy Industries and Nissan Diesel. Assuming 100 employees as a cut-off point for first- and second-tier subcontractors, 11 establishments, or around 15 percent of the total, are first-tier subcontractors. This makes the number of second- and third-tier subcontractors around 60, or 82 percent of the total.¹⁰ Among the 60 second-tier and third-tier subcontractors, it may be plausible to assume that 10 to 20 are second-tier subcontractors and 40 to 50 are third-tier subcontractors, assuming 30 employees as a cut-off point. Despite the large number of second and third-tier subcontractors, they account for only 5 percent of total value added for the industry.

⁷ By the ratio of internal production we mean the share of value added to which assembling firms contribute, compared to the total value added for the automobile industry.

⁸ Ohta city office, internal document.

⁹ Lack of detailed statistics precludes one from isolating the automobile and automobile parts industry from the rest of the transport machinery sector.

¹⁰ The cut-off point of 100 employees for the first-tier and second-tier subcontractors and 30 employees for the second-tier and third-tier subcontractors is based on a survey conducted by the Ohta city office of subcontractors for Fuji Heavy Industries.

Both Fuji Heavy Industries and Nissan Diesel have their assembly plants in Ohta. In Gumma prefecture, where Ohta is located, Daihatsu and Hino also have assembly plants. Nissan, Honda, and Isuzu operate assembly plants in neighboring prefectures. These near-by assembly plants offer abundant business opportunities for the auto parts producers in Ohta,¹¹ although Fuji heavy industries dominates. (A sample survey conducted by the Ohta city office in 1992 revealed that 50 percent of 36 subcontracting parts suppliers listed Fuji Heavy Industries as their major sales partner).

Despite the dependence of local Ohta auto parts suppliers on Fuji Heavy Industries, they also have extensive business relationships with assemblers outside of Gumma. Through diversification, parts suppliers attempt to minimize the costs of business fluctuations associated with a particular assembler, while assemblers seek to procure parts from the most efficient suppliers. Overall the transactional relationship between subcontractors and their parents in transport machinery production is not as rigid as the relationships observed in the electronics industry, which also follows a pyramid-style subcontracting pattern.¹² The average number of parents per subcontractor has risen from 4.8 in 1990 to 5.3 in 1992. Similarly, over the same period, the share of subcontractors whose sales-dependence on their primary parent firm exceeded 80 percent, dropped from 36 percent of subcontractors to 30 percent.¹³ In particular, dependence on Fuji Heavy Industries is dropping rapidly, as the share of Ohta subcontractors that transact with Fuji Heavy Industries declined from 64.4 percent in 1990 to 49.5 percent in 1992.¹⁴

The degree of dependence on single parent firm differs between the first- and second-tier subcontractors. First-tier subcontractors, generally with higher technological capabilities, produce high quality parts that could be sold on their own. Thus, a survey of subcontractors

¹¹The size of their potential market may be indicated by the fact that the number of workers at these assembling plants in Gumma and its three neighboring prefectures amounted to over 30,000 in 1987, or approximately 20 percent of overall employment at assembly plants in Japan.

¹²The following statistics attest to this observation. The average number of parents per subcontractor for transport machinery is higher at 5.3 than that for electric machinery at 4.4, implying that subcontractors in transport machinery rely less on one particular parent (Ohta City Office [1992]). This point may also be observed in the degree of dependence of subcontractors on parent firms for their sales in these two sectors. In transport machinery, those subcontractors whose dependence on their main parent firm (ie the firm taking in the largest sales) exceeds 80 percent, account for 30 percent of the total, while the corresponding ratio in electric machinery is significantly higher at 50 percent.

¹³ Ohta City Office [1990 and 1992].

¹⁴ Ohta City office, Internal document.

associated with Fuji Heavy Industries (conducted by the Ohta city office) found the sales dependence of first-tier subcontractors on parent firms to be 43 percent, while the corresponding number for second-tier subcontractors was a much higher 75 percent.¹⁵ Although the statistics are not available, this dependency appears to be even greater degree for the third-tier suppliers.

II-3. Silverware in Tsubame: Organization of a Traditional Local Production Network

Many of Japan's SMEs have origins in Japan's traditional craft activities. Often these craft-based industries were concentrated in a particular geographic locality, where various factors such as natural environment and merchant activity contributed to the area's development. Many of Japan's local production areas can be traced back to the Edo period (1603-1867) when handicrafts and local produce from around the country were brought to central economic areas such as Tokyo and Osaka for sale. Tsubame city can be classified as such a case. Located nearby a copper mine, Tsubame became a center of nail-making, a traditional handicraft industry in the feudal period. In a subsequent section, we will examine how Tsubame's SMEs evolved from traditional handicraft producers to suppliers of contemporary silverware and housewares. The present section details the inter-firm relations within which Tsubame SMEs currently are embedded.

Tsubame city is the center of silverware production not only in Japan but also in the world.¹⁶ The basic silverware production process has remained the same since the start of mass production in the early 1900s. A typical production process for silverware and housewares, shown in Figure II-1,¹⁷ requires a number of subprocesses.¹⁸ Only a few firms undertake the entire production process, while most focus on just one or several of these

¹⁵ Ohta City Office, Internal document.

¹⁶ According to estimates by the Japan Metal Flatware Industry Association, world silverware production amounted to 200 million dozens in 1985, of which 59 million dozens, or approximately 30 percent, were produced in Japan.

¹⁷ For forks and spoons, a metal sheet is first cut according to the required shape (shearing). Then the part other than the handle is thinned with the use of a rolling machine (rolling). After the rolling process, the handle is cut exactly according to the shape that one sees in the final product (punching). Up to this point, the material is still flat. The material is next given its three-dimensional shape by the press machine (pressing). For knives, the edge-making process is required as well. Finally, polishing is carried out. Each of these processes requires a number of subprocesses. For example, there maybe up to four steps in polishing: rough polish (machine-operated), rough electric polish, finishing electric polish, and finishing polish (manual).

¹⁸ The production process of housewares is basically the same as that for silverware. One major difference, however, is welding, which often takes place in housewares production but not silverware production.

processes, with the production system organized as a pyramid-style subcontracting system. This pyramid style of production, which relies heavily on subcontractors, is well-suited to Japanese-style silverware production, in which a variety of silverware is produced in limited quantities.

Parent firms, which receive orders for final products from trading houses or which engage in the production of final products at their own risk, consign several processes to the first-tier subcontractors, which in turn consign some processes to the second-tier subcontractors. First-tier subcontractors are generally engaged in such processes as shearing, rolling and other activities except for polishing. Second-tier subcontractors mainly specialize in polishing. The relationship among the parent firms, first-tier subcontractors, and second-tier subcontractors is quite flexible, since subcontracting arrangements are not formulated on an exclusive one-to-one basis.

The silverware and housewares industries had 148 and 127 parent firms, respectively, in 1991, according to statistics reported by the city office (Table II-4). There were 182 and 265 first-tier subcontractors, respectively, plus 1014 second-tier subcontractors, who specialize in polishing for both silverware and housewares. Parent firms often undertake subcontracting business for other parent or trading firms. Parent firms range in size from small firms with only one employee to medium-sized firms with more than one hundred employees, while first and second-tier subcontractors on average employ less than ten people.¹⁹

Parent firms purchase inputs (such as stainless steel from metal producers) and inspect finished products. Since the quality of silverware depends largely on the quality of materials, silverware producers, especially the large ones, actively engage in the development of new materials. Smaller silverware manufacturers generally purchase materials from trading houses.

¹⁹The following numbers indicate the importance of subcontracting in the silverware industry. In 1990 as many as 41.5 percent of the firms in the industry consigned work to other firms; for medium-sized firms with 20 or more employees, 96.2 percent had such arrangements (Small and Medium Enterprise Agency (1990), pp. 58-59). The share of all firms engaged in subcontracting was 68.9 percent, while the corresponding share for firms with less than 20 employees was higher at 74.3 percent.

II-4. Fukui-Ishikawa: Complex Vertical Relations in a Synthetic Fiber Textiles Local Production Network

As with other textile materials industries, the synthetic fiber industry is made up of many tasks, from the upstream production of yarn by large chemical firms to the downstream production of apparel. Simplifying, the production process comprises five steps – (1) material production by chemical firms (through which yarn is produced), (2) yarn processing such as twisting and sizing, (3) weaving, (4) dyeing and finishing, and (5) apparel making.

Production steps (2), (3), and (4) take place in Fukui-Ishikawa. Table II-5 shows the size distribution of weaving firms in terms of the number of looms in the two prefectures. A large number of weaving houses have 50 looms or less. These are very small-scale firms, mostly family-run, with less than 10 workers. However, even the larger firms with more than 100 looms are classified as SMEs, since they employ less than 300 workers.

Figure II-2 illustrates the transactional relationships within the synthetic fiber textile industry. There are several important players: chemical companies producing yarn, large trading houses, local wholesalers, and weaving houses. The position of weaving houses in Japan's synthetic fiber textile industry is quite different from that of weaving houses in other textile industries in Japan or from the weaving sector for synthetic fiber industries in other countries. Much of the weaving process takes place under weaving service fee contracts with chemical companies, trading houses, or local wholesalers.

A service fee contract operates as follows: Either chemical companies or trading houses supply yarn to weaving houses, who return the woven textiles to them after the weaving and dyeing is finished. Weaving houses are paid service fees based on the amount of woven textiles they produce. Sales risk is covered by either the trading houses or the chemical industry. This contractual form was common historically in the traditional silk weaving industry, (out of which Fukui-Ishikawa's synthetic fiber industry evolved). The practice became increasingly dominant after World War II. Thus in 1955 54% of Fukui-Ishikawa's textile production was by fee contract. By 1989, this share had risen to 84% suggesting that weaving houses in Fukui-Ishikawa have increased their dependence on

chemical companies and trading houses for risk-taking, technical support, and sales of their products.²⁰

It is necessary to distinguish between cases in which weaving houses transact directly with chemical companies and cases in which weaving houses transact with trading houses or wholesalers.²¹ When weaving houses transact directly with chemical companies, the process is called "maker chop" in Japanese, which means the products are under the control of the chemical companies. When weaving houses transact with trading houses or local wholesalers, the process is called "unbra," meaning non-brand products.²²

"Maker chop" products are given the brand names of the large national chemical companies.²³ These firms are heavily involved in the marketing of their products, both textiles and final goods. Only weaving houses with a reputation for sophisticated weaving skills are invited to be members of production networks under chemical companies. The weaving fees under "maker chop" contracts are generally higher than those under "unbra" contracts. Chemical companies have been nurturing keiretsu weaving houses and have introduced a series of new materials to the market in an attempt to improve competitiveness.

The textiles produced under "unbra" contracts are not national brands. Since trading houses and wholesalers purchase yarn from chemical companies, the material they use is not the most advanced. The weaving houses in this production network are relatively small and have less technological skill in dealing with new materials than weaving houses under "maker chop" contracts.

²⁰ Internal documents, Fukui and Ishikawa ——. All 33 firms we interviewed made this kind of contract either with chemical companies or with trading houses. In fact, 66% of the firms we interviewed answered that 100% of their products were produced under fee contracts. For the remainder, 10 to 30% of their products are sold to third parties (through trading houses) with the risk taken by weaving houses. This is quite different from, say, the wool product industry, where weaving houses are more independent.

²¹ The term "trading houses" here means large trading companies (sogo shosha) such as C.Itoh and Marubeni, while the term "wholesalers" means local trading companies. It is not necessary to distinguish between the two for this discussion.

²² There are some differences between Fukui and Ishikawa. In Ishikawa there are several large local wholesalers, so "unbra" is more common than in Fukui. Since local wholesalers were very influential in Ishikawa, they organize the local weaving houses under their control. Thus national trading houses and chemical companies have difficulty gaining direct access to these weaving houses. The local wholesalers purchase yarn from several chemical companies so that they do not depend heavily on one particular company. National trading houses such as C.Itoh and Marubeni are more influential in the Fukui area, where they have established their own production networks. Large chemical companies have also established their own production network in Fukui by inviting weaving houses with high technical skills to be members of their production networks.

²³ The leading chemical companies include Toray, Teijin and Asahikasei, all of which are classified as large-scale corporations.

The distribution of weaving houses between the two types of contracts reflects the wide variety of products produced in this area. Even the firms with high technical skills involved in "maker chop" transactions also get involved in transactions with trading houses or local wholesalers.²⁴ For firms mainly involved in "maker chop" contracts, "unbra" contracts are a way to stabilize production, since orders from chemical companies fluctuate considerably depending on market conditions.

Most firms have business relations with more than two trading houses. There is a continuous flow of inquiries from trading houses to weaving houses about the possibility of weaving various kinds of textiles. For their part, when weaving houses have new product ideas, they go to trading houses to find out about the potential for selling these products.

II-5. The Importance of Industrial Organization

As the three cases have illustrated, the Japanese economy incorporates SMEs in a number of noteworthy ways. These include: (1) widespread subcontracting in many industries and regions, (2) the functioning of local production networks, called "sanchi" in Japanese, (3) the complicated division of labor among many firms in the vertical flow of goods encompassing various industries, and (4) the intricate and complicated transactional relations observed between firms.

Most SMEs depend upon the help of local production networks and subcontracting relations for survival. They sell their products mainly to parent companies or to trading houses, not directly to final consumers. They receive a continuous flow of information from parent companies, trading houses, and rival producers. Trading houses and parent companies even provide SMEs with financial support in forms such as commercial credits.

Under these circumstances, public SME support policies can be effective only when they are implemented through local production networks. Understanding their role can be evaluated only in relation to the industrial organization surrounding SMEs. Indeed, one of the most important contributions of public SME support policies has been to enhance the function of local production networks. Beneficiaries of these support policies are thus, not only the SMEs that require local production networks and subcontracting relations to survive, but also

²⁴In our sample, 27 out of 33 firms are involved in both types of contracts.

the larger firms whose competitiveness depends on the efficiency of subcontracting SMEs and on active interactions with the local production network.

III. Support Systems and Characteristics of Sample Firms

III-1. SME Support Systems in Tsubame, Fukui, and Ohta

As discussed further in sections IV-VI, three types of institutions generally provide support to SMEs, regardless of the locality (See Table I-1). First are those institutions providing functional support in specialized fields regardless of the industry in question, such as public financial institutions and technical centers. These institutions are usually operated by either national or local governments. Sector-specific organizations, such as industry associations, are a second type of supporting institution. These are generally private or semi-private organizations, although they often receive some form of public support, including preferential loans and tax rates. Finally, various local governments and chambers of commerce provide general support to all kinds of SMEs regardless of their business activity. These city and prefectural governments and local chambers of commerce are also generally engaged in coordinating SME policies.

Before we begin our analysis of the operation of technical, marketing, and financial support systems, this chapter will review some background features of the institutional environment specific to Tsubame, Fukui and Ohta, followed by an introduction to the firms surveyed in each locality.

Tsubame: Table III-1 shows important SME public support institutions for silverware producers in Tsubame. Support provided by non-sector specific institutions is often focused on the silverware industry since it has a significant position in Tsubame's economy. A case in point is the Tsubame Wholesalers Cooperative Association. Although set up to promote wholesalers' dealings with Tsubame products in general, this association's major activity is distributing silverware.

Support institutions in Tsubame appear to be quite active compared to other regions, with the city office and the chamber of commerce playing a central role. The city has a strong information exchange network among various institutions, including the city office, the chamber of commerce, and industry associations. These institutions actively collect

